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RICH FINGER, District Wildlife Biologist ELLA ROWAN, Assistant District Wildlife Biologist





DISTRICT 5 HUNTING PROSPECTS

Grant and Adams counties

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DISTRICT 5 GENERAL OVERVIEW

The Ephrata District offers a variety of hunting opportunities, but is most recognized for waterfowl hunting throughout Grant and western Adams counties and mule deer hunting within the Desert Unit (GMU 290). Pheasant, quail, and mourning dove hunting is popular within the Desert, Potholes, Goose Lakes, Lower Crab Creek, Banks Lake, and Quincy Lake units of the Columbia Basin Wildlife Area (Figure 1). Other opportunities within the district include bobcat, cougar, chukar, gray partridge, cottontail rabbit, coyote, and both general season and permit opportunities for mule deer. Elk are occasionally harvested, but resident populations do not occur in this district.

Habitat in the Ephrata District is variable. Within the Columbia Basin Irrigation Project (CBIP), the landscape is mostly flat, but east-west running sand dunes occur within the Desert Unit, which includes both Winchester and Frenchman Hills Wasteways. Important crops for wildlife within the CBIP include corn (grain, sweet, and silage), spring wheat, alfalfa, and orchards. Within the CBIP, hunters can expect to find mule deer (Desert Unit – GMU 290), abundant waterfowl, and fair numbers of pheasant and quail. Waterfowl habitat is a byproduct of altered hydrology associated with the wasteways and reservoirs created by the CBIP.

Lands surrounding the CBIP include highly fragmented shrub-steppe, dryland wheat, coulees, and Conservation Reserve Program (CRP) lands. In these areas, hunters can expect to find gray partridge, mule deer, and chukar in the steepest portions of the district (Sun Lakes and Quincy Lakes units). Much of this land is in private ownership, but some is enrolled in private lands access programs with WDFW. For more information, see the <u>WDFW website</u>.

Dominant native upland shrubs include big sagebrush (*Artemisia tridentata*), bitterbrush (*Purshia tridentata*), rabbitbrush (*Chrysothamnus nauseosus*), greasewood (*Sarcobatus vermiculatus*), and spiny hopsage (*Grayia spinosa*). Coyote willow (*Salix exigua*), golden currant (*Ribes aureum*), and Woods' rose (*Rosa woodsii*) are the dominant native shrubs associated with riparian habitats. Other, non-native riparian species include Russian olive (*Eleagnus angustifolia*), which dominates much of the landscape on the Desert Unit. Dominant native perennial grasses include bluebunch wheatgrass (*Pseudoroegnaria spicata*), sandbergs bluegrass (*Poa secunda*), great basin wildrye (*Leymus cinereus*), needle-and-thread (*Hesperostipa comata*), and indian ricegrass (*Oryzopsis hymenoides*). Cheatgrass (*Bromus tectorum*) is by far the most common non-native, invasive annual grass found in this area.

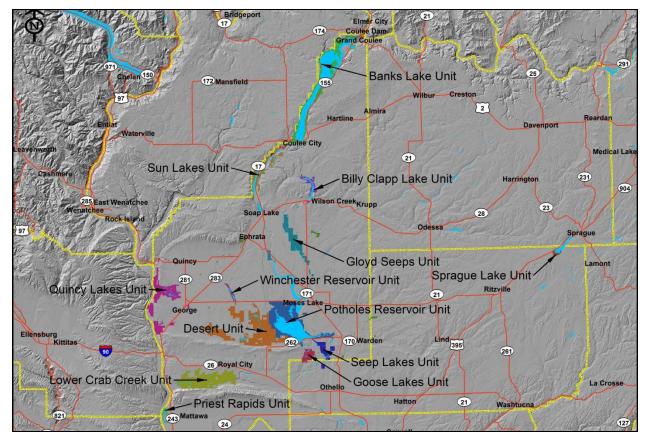


Figure 1. Columbia Basin Wildlife Area Units.

HABITAT MANAGEMENT

Biologists continue working with wildlife area staff members to target grant opportunities for funding to create and recover wetland projects, manage wetland succession, and plant a limited acreage of food plots.

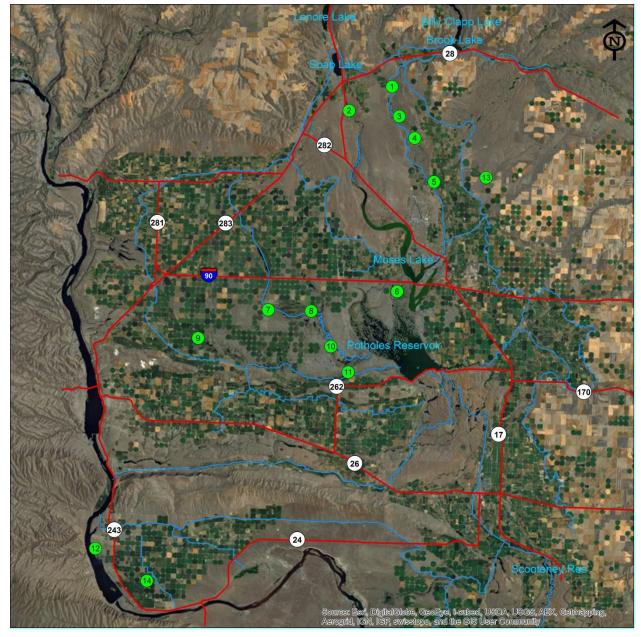


Figure 2. Distribution of waterfowl-related work in Ephrata District. Green circles represent project areas.

Waterfowl-related work in the Ephrata District includes:

Gloyd Road 20 Sharecropping: Grain crops are commonly sharecropped at this site to provide food for pheasants and quail. During some years, alfalfa is grown with requirements for delay harvest to allow for upland game bird production.

Ephrata Lake Acquisitions: To date, WDFW has purchased 120 acres of land around Ephrata Lake. This lake is an important staging area for waterfowl during migration and is also important during the breeding season. WDFW is currently considering rehabbing (removing

fish) this lake to improve migratory bird habitat, and efforts are underway to collect baseline habitat quality data.

Middle Crab Creek Habitat Enhancement: Emphasis is being placed on opportunities to improve waterfowl nesting habitat in the Gloyd Seeps Unit to supplement an increase in wetland acreage stemming from irrigation operations. Approximately 200 acres are currently being restored to native grassland, but the process is expected to take several years (Figures 2 and 3). WDFW is currently working with the Washington Waterfowl Association on an ALEA grant to plant approximately 10,000 shrubs in the northern portion of the Gloyd Unit at the Road 19 upland habitat enhancement site (Figure 4).

Wetland enhancement projects at the Spud Field and Flood Flat are completed, though some additional work may be required to reach full operation potential.



Figure 3. Islands being constructed on the Spud Field floodplain for the benefit of nesting waterfowl and hunting opportunity.

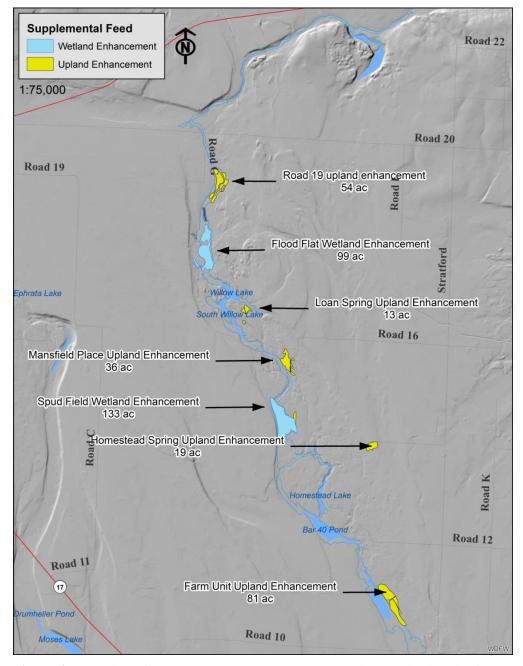


Figure 4. Location of wetland and upland enhancements in the Gloyd Unit of the Columbia Basin Wildlife Area.

Mansfield Pond Recovery and Maintenance: Efforts are underway to reduce tall emergent vegetation by mowing, burning, and spraying, particularly along wetland edges, to allow for hunting opportunity and to increase habitat value. This will be a slow process, but will ultimately result in improved hunting opportunities in this area. We've observed a considerable response by smartweed (*Polygonum* spp.) in the area when tall emergents such as common reed (*Phragmites australis*) are removed. This site continues to improve every year.

Road 10 Gloyd Farm Unit Wetland Enhancement: This is an enhancement of a small pond to improve forage productivity for waterfowl and hunting opportunity. Smartweed production in this wetland complex has increased tremendously as a result of these management actions.

Westlake Vegetation Control: This project is mostly vegetation management, primarily aimed at improving northern leopard frog habitat, and it has the added benefit of improving waterfowl habitat by opening up wetlands from dominance by tall emergent vegetation.

Winchester Restricted Access Area Management: There is an emphasis on mowing vegetation for hunting access.

Common Reed Control: Many acres of common reed are controlled along Winchester Wasteway (Dodson to Potholes Reservoir) and throughout North Potholes. WDFW has received considerable positive feedback with regards to the opening of previously closed in wetlands.

239 Drain Project Recovery: There have been ongoing herbicide treatment efforts of common reed to recover shallow excavated wetland basins.

Harris Ponds Maintenance: There has been regular maintenance to maintain open water within shallow excavated wetlands.

Frenchman Restricted Access Area Management: Two ADA (Americans with Disabilities Act) blinds were constructed at this project area (Figures 5 and 6), which are available for use by contacting the Ephrata Regional Office at (509) 754-4624 for a reservation and combination to the lock.



Figure 5. Frenchman regulated access area ADA blind #1 just after installation at the Frenchman Regulated Access Area. Photo by Conner Webster.



Figure 6. Frenchman Regulated Access Area ADA Blind #2 showing moist soil management work in front of blind. Photo by Cameron Eddy.

Buckshot Goose Field: This alfalfa field has an ADA (Americans with Disabilities Act) access pit blind. Contact the Ephrata Regional Office at (509) 754-4624 for a key.

Artesian and Black Lakes: WDFW has developed new partnerships with Lincoln County Conservation District and Department of Ecology to explore the possibility of restoring the shallow aquifer to make this project viable. Two wells have been installed to monitor groundwater levels and we are seeking funding to implement the project, which is intended to recharge the aquifer and restore natural wetland functions.

Sharecrop Field: This area provides field hunting opportunities for waterfowl.

ELK

GENERAL INFORMATION, MANAGEMENT GOALS, AND POPULATION STATUS

Elk are rare and therefore are not a management priority in District 5. Resident elk herds do not exist in GMU 272, GMU 278, or GMU 290. These trends are not expected to change in the near future. Because of the significant potential for crop depredation issues, WDFW does not encourage the establishment of elk herds in District 5. WDFW provides any elk opportunities during the general archery and modern firearm seasons.

GMU 284 is near the Hangman Creek sub-herd of the Selkirk herd. This herd is composed of approximately 300 individuals and occurs approximately 16 miles to the northeast at Turnbull National Wildlife Refuge (GMU 130). These elk enter GMU 284 and are occasionally harvested. Twenty elk (10 bulls and 10 cows) were harvested during 2015, all of which were taken by modern firearm hunters. Nineteen of these were taken in GMU 284, with the other taken in GMU 278. Because harvest levels are extremely low in this district, biologists do not conduct annual surveys for elk. Elk are occasionally harvested in GMU 278, but these elk are likely coming from the Rattlesnake Hills elk herd in the Hanford Reach area.

WHAT TO EXPECT DURING THE 2016 SEASON

If hunters wish to hunt elk in District 5 during the 2015 season, they are most likely to be successful in the eastern portions of GMU 284. However, the majority of this GMU consists of agricultural and other private lands, so access may be difficult.

DEER

GENERAL INFORMATION, MANAGEMENT GOALS, AND POPULATION STATUS

GMU 272 includes 53,000 acres of the Columbia Basin Wildlife Area Complex (Gloyd Seeps, Banks Lake, Sun Lakes, Billy Clapp, and Quincy Lakes units), most of which is open to hunting. The number of deer hunters hunting general seasons (includes multi-weapon permits) within GMU 272 since 2001 ranges from about 1,175 to 1,650. There were 1,447 hunters who pursued deer in this GMU during 2015. During the 2015 season, success rates in GMU 272 were 25.7% for archery, 25.1% for modern firearm, and 31.8% for muzzleloader. The success rate was 50.4% for multi-weapon hunters. Antlerless permit success rates for youth and disabled hunters were 75% and 33%, respectively. The Lakeview Unit antlerless permits typically see variable success rates (27-91%), with the record 91% occurring last year, probably due to the timing of winter conditions, which pushed mule deer out of the winter wheat and into Lakeview orchards that this hunt is intended to protect.

GMU 278 includes 36,000 acres of the Columbia Basin Wildlife Area Complex (Lower Crab Creek Unit), which is open to hunting. Harvest in this unit falls between 22 and 67 deer, with hunters harvesting approximately 60 deer in recent years. The number of deer hunters hunting general seasons within GMU 278, including multi-weapon permits, range from about 150 to 310. Two hundred seventy-seven hunters pursued deer in this GMU during 2015. During the 2015

season, success rates in GMU 278 were 20.4% for archery, 26.3% for modern firearm, and 40.0% for muzzleloader. The success rate was 41.5% for multi-weapon hunters.

GMU 284 is dominated by private property. Hunters should plan to seek permission to access private lands and/or plan on hunting lands enrolled in the WDFW Access Program, as little Wildlife Area land (about 1,600 acres) is available in this unit. The number of deer hunters hunting general seasons within GMU 284 ranges from about 650-1,100. There were 898 hunters who pursued deer in this GMU during 2015. During the 2015 season, success rates in GMU 284 were 34.8% for archery, 38.5% for modern firearm, and 31.5% for muzzleloader, with a 50.0% success rate for multi-weapon hunters.

GMU 290 (Desert Unit) is a permit only unit, thus all hunting opportunities in GMU 290 are issued through the public draw. Post-hunt ratios were 44 bucks:100 does, with 60% of bucks being classified as greater than 2.5 years old during 2014 aerial surveys. Surveys were not conducted in 2015. Harvest success for bucks varies greatly by hunt choice. Hunts listed in order of highest success rates are as follows: late modern, early modern, muzzleloader, late archery, and lastly, early archery.

Forty-one percent of land in GMU 290 is managed by the Columbia Basin Wildlife Area, thus public opportunity is widely available. Public land in this unit consists of riparian areas associated with the Winchester and Frenchman Wasteways, and is surrounded by rolling, sandy dunes with varying densities of shrub cover. The majority of the private agricultural land in this unit occurs throughout the western half.

For additional information, please see the Adams and Grant Counties Deer Harvest Statistics.

WHICH GMU SHOULD DEER HUNTERS HUNT?

With the exception of the Desert (GMU 290) and Wahluke (GMU 278) units, mule deer in the Ephrata District are largely migratory. Historically, radio-marked mule deer exhibited movements from neighboring GMUs into the Ephrata District (Figure 7). These movements are largely weather dependent, with snowfall and day length likely having the largest effect on fall and winter movements. Mule deer will reverse this migration and return to fawning grounds during spring. South and east movements of mule deer into GMU 272 from neighboring GMUs such as Big Bend, Saint Andrews, and Moses Coulee are also believed to occur, but these movements are not as well understood.

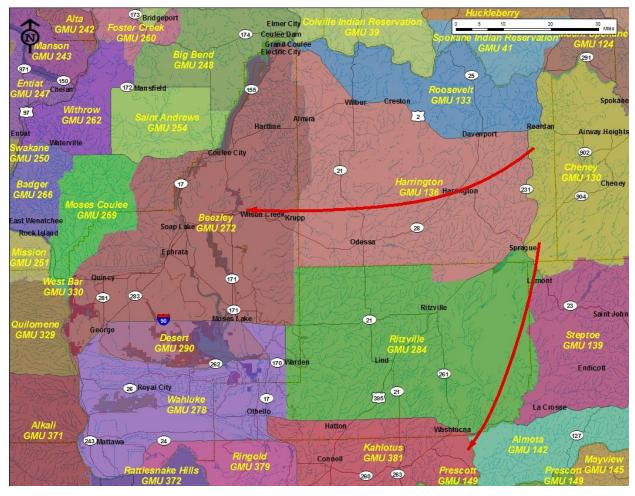


Figure 7. Generalized patterns of fall and winter mule deer migration into the Ephrata District.

WHAT TO EXPECT DURING THE 2016 SEASON

Most deer harvest occurs in GMUs 272 (Beezley) and 284 (Ritzville), where 10-year average post-hunt buck:doe ratios from ground surveys are 23:100 and 26:100, respectively. WDFW observed 23:100 (50% mature) and 24:100 (66% mature) during the 2015 post-hunt survey ground counts for GMUs 272 and 284, which suggests that harvest of older age class bucks should be good for the 2015 season. Evidence of low recruitment from fawn:doe ratios from 2014 and 2015 (record lows) will likely result in reduced 2.5 year-old buck harvest beginning this season and becoming most apparent during 2017. However, conditions during summer 2016 have been very favorable for a rebound in recruitment and we expect fawn:doe ratios to come back in line with long-term trends during post-harvest surveys this season.

DEER AREAS

There are localized areas in District 5 where deer congregate during harsh or prolonged winters and have the potential to cause crop damage. To address this issue, WDFW provides limited permit only opportunities to harvest antlerless deer that occur in close proximity to these areas. WDFW defines such areas as Deer Areas. By providing these opportunities, WDFW hopes to minimize crop depredation by deterring mule deer from congregating in Deer Areas. Deer Areas

in District 5 include Deer Area 2010 (Lakeview), located in GMU 272, and Deer Area 2011 (Benge), located in GMU 284. See the most recent <u>Big Game Hunting Seasons & Regulations pamphlet</u> for current permit opportunities and legal boundary descriptions.

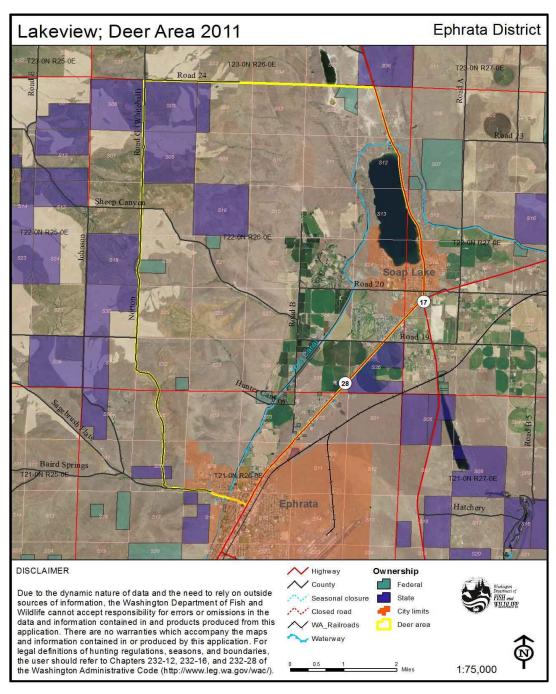


Figure 8. Lakeview Deer Area map.

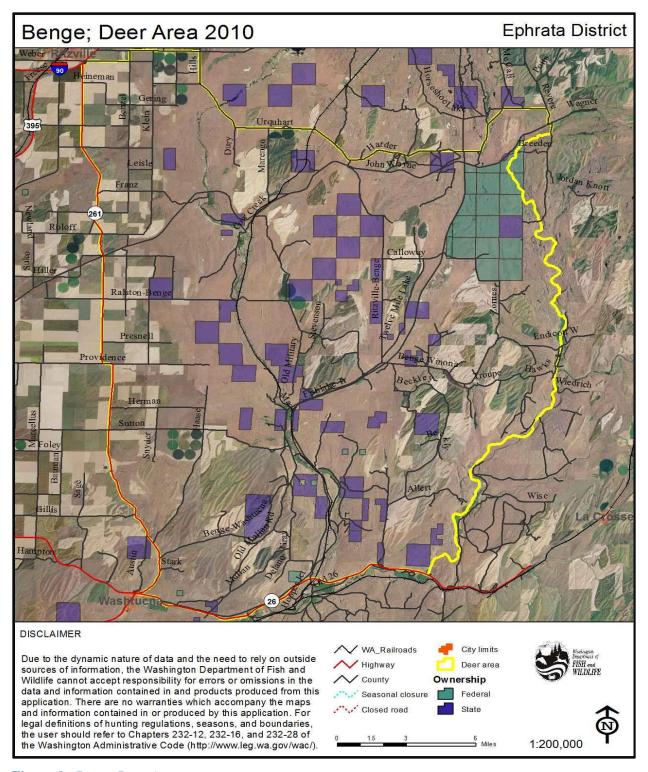


Figure 9. Benge Deer Area map.

BEAR

GENERAL INFORMATION, MANAGEMENT GOALS, AND POPULATION STATUS

The Ephrata District does not have a resident population of black bears. The establishment of black bear populations in this district is not expected in the foreseeable future.

WHAT TO EXPECT DURING THE 2016 SEASON

The Ephrata District is not an optimal area to target black bears. An occasional bear may disperse through this district and the most likely places to encounter these dispersers are the Beezley Hills and Moses Coulee.

COUGAR

GENERAL INFORMATION, MANAGEMENT GOALS, AND POPULATION STATUS

Modeling efforts suggest a small population of adult cougar in the Ephrata District and annual harvest is very low. Cougar harvest comes mostly from GMU 272 (Beezley Hills). Populations are expected to remain stable in this area for the foreseeable future.

WHAT TO EXPECT DURING THE 2016 SEASON

The Ephrata District is not an optimal area to target cougar. The most likely places to encounter these cats are the Beezley Hills, Moses Coulee, and adjacent to the Crab Creek drainage upstream from the town of Stratford.

PHEASANT

Grant County was Washington's top pheasant producing county in 2015. Hunters bagged 6,862 birds in Grant County and 1,470 in Adams County for a total harvest of 8,332 pheasants. Harvest decreased compared to the previous 5-year average (down 26% for Adams County and 25% for Grant County), but hunter participation declined compared to the previous 5-year average as well (down 19% for Adams County and 17% for Grant County). See the 2015 Adams and Grant Counties Pheasant Harvest Statistics for additional information.

The largest wild populations of pheasants on WDFW lands in District 5 are likely to be found within the Desert Unit of the Columbia Basin Wildlife Area Complex between Potholes Reservoir and the town of George. Mixed bags of wild and released birds are also likely to be had in the Lower Crab Creek, Gloyd Seeps, Quincy, Buckshot, Warden and Dry Falls units. Directions to pheasant release sites can be found in the Eastern Washington Pheasant Enhancement Program document. Non-toxic shot is required at all pheasant release sites.

For wild birds, dense thickets of Russian olive and cattail associated with Frenchman and Winchester Wasteways and ponds are likely to hold pheasants. Hunters will increase their odds greatly with a well-trained dog to both flush and retrieve the birds in dense cover. Pheasants are strong runners, so moving quickly and quietly can improve the odds of getting a close shot.

January and March precipitation levels were close to twice historic averages, although April through June levels were well below average. Wet conditions improve invertebrate productivity, which are a critical dietary component of young pheasant chicks. Hunters can expect similar numbers of wild pheasants as was observed during the 2015 season. Most hunters who invest considerable effort and cover a lot of ground will cross paths with a few wild birds. Hunters can increase their chances for a productive hunt by selecting non-toxic shot and diversifying the bag with waterfowl.

QUAIL

Grant County was again Washington's second highest producing county in 2015, while Adams County continued to receive little harvest. Hunters bagged 17,619 quail in District 5 in 2015 (15,243 in Grant County and 2,376 in Adams County), which was a 25% increase compared to the previous 5-year average for Grant County and an 18% increase compared to the previous 5-year average for Adams County. See the 2015 <u>Adams and Grant Counties Quail Harvest Statistics</u> for additional information.

Traditional quail hunting areas on WDFW lands in the Ephrata district include the Desert Unit of the Columbia Basin Wildlife Area Complex between Potholes Reservoir and the town of George, Lower Crab Creek between Corfu and the Columbia River, Gloyd Seeps between Stratford and Moses Lake, the Quincy unit near the town of Quincy, and the Dry Falls unit at the south end of Banks Lake. Hunters will increase their odds greatly with a well-trained dog to either flush or point, and retrieve the birds.

Large coveys are difficult to find by mid-season on public lands, and successful hunters will benefit by identifying multiple coveys to pursue throughout the season. Riparian areas will offer the best hunting and hunters can increase their chances by securing access to private lands, where pressure can be considerably lower. If pressure is high, some coveys can be found settling into shrub cover a considerable distance from heavily hunted areas. Hunters with wide ranging pointing breeds can be most successful at targeting these coveys.

Quail hunting is expected to be abundant this year. Winter temperatures were within norms and the area lacked long periods of snow crust that can result in low overwinter survival.

CHUKAR AND PARTRIDGE

Hunters harvested 1,288 chukar in District 5 during the 2015 season, with 1,019 being taken in Grant County and 269 in Adams County. These were 123% and 400% increases in harvest rates for Grant and Adams Counties, respectively, when compared to the previous 5-year averages. See the 2015 Adams and Grant Counties Chukar Harvest Statistics for additional information.

Hunters harvested 386 gray partridge in District 5 during the 2015 season, with 359 being taken in Grant County and 27 in Adams County. These were a 12% increase and an 83% decreases in harvest rates for Grant and Adams Counties when compared to the previous 5-year averages. See the 2015 <u>Adams and Grant Counties Gray Partridge Harvest Statistics</u> for additional information.

The Ephrata District is not a popular destination for chukar and gray partridge hunters, but a few birds can be found. Most chukar hunting in the district occurs in the Coulee Corridor areas around Banks and Lenore Lakes, and also along the Columbia River breaks north of Vantage. Chukar are challenging but rewarding game birds to pursue. Gray partridge occur in low densities in the basin but are rarely targeted by hunters. They are instead taken incidentally while hunting chukar, quail, or pheasant. Most gray partridge occur on private farm fields, particularly in the dryland wheat portions of Adams and, to a lesser degree, Grant counties. Chukar and gray partridge are resilient birds and thus likely fared well through the winter, which had very little snow cover.

DOVE

Grant County was Washington's top mourning dove producing county in 2015, with hunters bagging 21,745 birds. Hunters harvested 2,919 doves in Adams County, making the combined counties harvest 24,664 doves. Harvest rates increased compared to the previous 5-year averages for both Grant County (38% increase) and Adams County (52% increase), which were likely due to doubling the season length.

This upcoming hunting season continues with the extension through October, and dove hunting is expected to be very good. If conditions are stable, the birds found during scouting should be around during the hunt, but unstable conditions often redistribute birds significantly. Hunters may improve their success by securing access to wheat fields for the morning hunt. Evening hunts can be productive in wheat fields or in traditional roosting areas. Look for large stands of trees (preferably with dead limbs) adjacent to water and surrounded by agriculture for the best roost hunt results. Roost site hunting can be found along the north and west sides of Potholes Reservoir, the east side of Winchester Lake, and throughout the Desert Unit of the Columbia Basin Wildlife Area Complex.

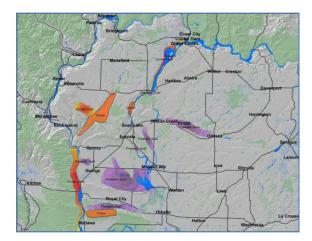


Figure 10. Generalized upland bird concentrations (pheasant, quail, and chukar) throughout the Ephrata District.

UPLAND BIRD MANAGEMENT

Upland bird management in the Ephrata District consists primarily of sharecropping and strategic use of bird feeders to increase over-winter survival. However, efforts are underway to enhance nesting cover throughout the Gloyd Seeps Unit of the CBWA. Wildlife area staff members are currently working to establish over 200 acres of nesting cover. These fields required a fallow period to reduce the seedbed of noxious weeds and invasive vegetation, which is now completed. Seeding of native perennial grasses occurred during winter of 2014. The site should continue to mature and improve over the next few years.

WATERFOWL

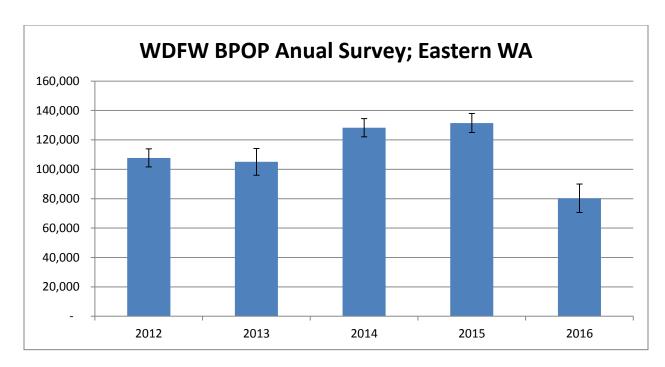
Grant County is consistently Washington's top duck producing county and 2015 was no different. Last year, hunters harvested 74,263 ducks in Grant County. Adams County hunters added 14,005 ducks for a district total of 88,268. This represents a 14% and a 23% increase in harvest for Grant and Adams counties, respectively. Both are above the 5-year average.

Grant County was Washington's top goose producing county in 2015 as well. Last year, hunters harvested 17,984 geese in Grant County. Adams County hunters added 2,863 geese for a district total of 20,847. This represents a 22% increase for Grant County and a 14% increase for Adams County. Both are above the 5-year average.

WATERFOWL POPULATION STATUS

The Washington Breeding Population Survey (BPOP), conducted in May, has been occurring since 2009. This survey is an indicator of breeding effort, as it estimates the number of waterfowl present during the breeding season. These data may best represent prospects for the earlier part of the season (opening weekend through mid-November), since most of our migratory mallards have not yet arrived. However, this information must be used cautiously, as molt migration will redistribute these birds to some degree depending on local conditions.

Early season species that occur in abundance during opening weekend include mallard, gadwall, wigeon, and green-winged teal. The mallard estimate of 33,230 for eastern Washington represents a 38% reduction from the 5-year average (2011-15) of 53,709. Gadwall numbers declined by 20%, while wigeon and green-winged teal increased by 66% and 45%. Hunters may want to consider hunting the teal and wigeon holes for the opener instead of the traditional mallard spots, but overall success should be similar to past years.



In addition to the BPOP survey, WDFW also conducts regular brood routes throughout eastern Washington. Routes in the Ephrata District include the East Low Canal, West Canal, Winchester Ditch, and Ephrata Lake. The total numbers are presented in FIGURE 11 for 2007-2015.

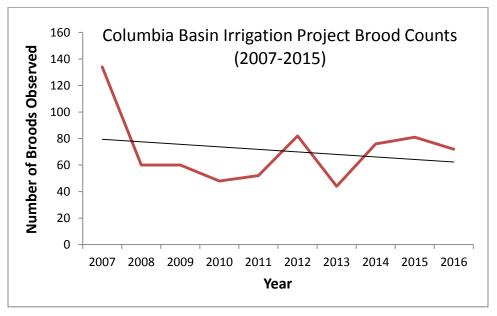


Figure 11. Duck brood count totals for Ephrata District strata, including West Canal, East Canal, Winchester Ditch, and Ephrata Lake.

Winter Waterfowl Surveys, including the USFWS Midwinter Survey conducted during the first week of January, can be located <u>online</u>. Areas covered during this survey are shown in Figure 12.

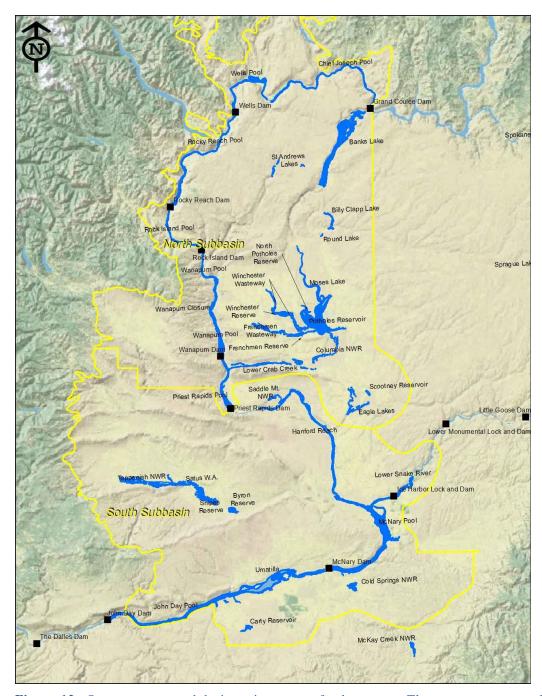


Figure 12. Survey strata used during winter waterfowl surveys. These areas represent locations of potential waterfowl concentrations.

WATERFOWL MIGRATION CHRONOLOGY AND CONCENTRATION AREAS

Migration (which peaks in November) will bring the best waterfowl hunting in the basin, as large numbers of mallards, wigeon, gadwalls, teal, scaup, redheads, and canvasbacks arrive from northern breeding grounds. Until this time, hunters must rely on locally produced birds and early season migrants, such as American wigeon and green-winged teal. December typically provides

the peak of mallards, ringnecks, and canvasbacks, while other dabbling and diving species continue their journey south. Goose hunting will typically improve in November, when early season migrant Canada geese (Lesser and Taverner's) begin to scatter from their initial staging area at Stratford Lake to alfalfa or grain fields within feeding distance from Moses Lake and the Columbia River.

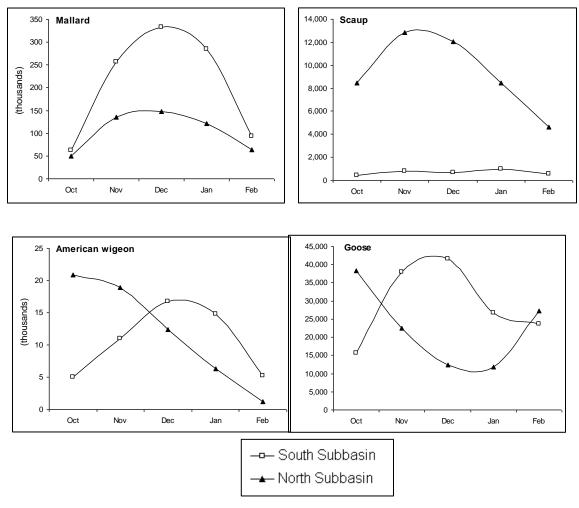


Figure 13. Migration curves for several species which winter in large numbers on the Columbia Plateau.

UNDERSTANDING WATERFOWL MIGRATION

The waterfowl hunting season in the Ephrata District is largely dependent upon bird production in Alberta, but locally produced birds remain important. Hunters must use caution when interpreting the spring habitat condition reports. The first step in understanding the relationship between breeding conditions and the expected harvest is to understand where the Columbia Plateau wintering birds are produced. Munro and Kimball (1982) report that the Northern Pacific breeding area (including Alaska, British Columbia, and Yukon-west Mackenzie minor reference area) provides the bulk of the mallards harvested in Washington State.

The second most important breeding area contributing to Washington State harvest is northern Alberta, followed by southwest Alberta, and lastly by locally produced birds in Washington and Oregon. Band recoveries of locally banded birds harvested in Washington exhibit a similar pattern, although over time, these patterns may change, as these band recoveries represent a long-term dataset (1949-2012).

Of additional consideration, Rabenberg (1982) reports that "breeding pair and production indices from southwestern Alberta were negatively correlated with Basin¹ mid-winter mallard populations." Thus, the degree to which birds produced in southwestern Alberta migrate through the basin may be variable or may not be fully understood. Perhaps the important consideration is that poor breeding conditions on the prairie parklands has been shown to displace birds to the north-northwest to northern Alberta, Alaska, and the Northwest Territories (Buller 1975, Rabenberg 1982). Birds displaced to these areas have a higher likelihood of migrating through the basin during fall and winter. This is evidenced by the peak of mid-winter populations in the basin following severe drought across southern Canada and the Dakotas during the early 60s.

¹ Basin includes all important waterfowl wintering areas adjacent to, or in-between, Moses Lake, Washington and Hermiston, Oregon.

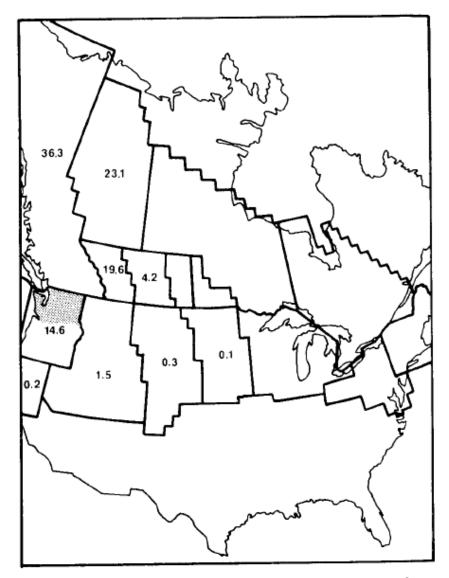


Fig. D-11. Percent derivation of the mallard harvest in Washington (shaded) from major breeding reference areas.

Figure 14. From Munro and Kimball 1982 – Population Ecology of the Mallard. VII. Distribution and derivation of the harvest. These percentages describe where the ducks harvested in Washington State are coming from. Note the importance of northern and southwestern Alberta, as well as British Columbia.

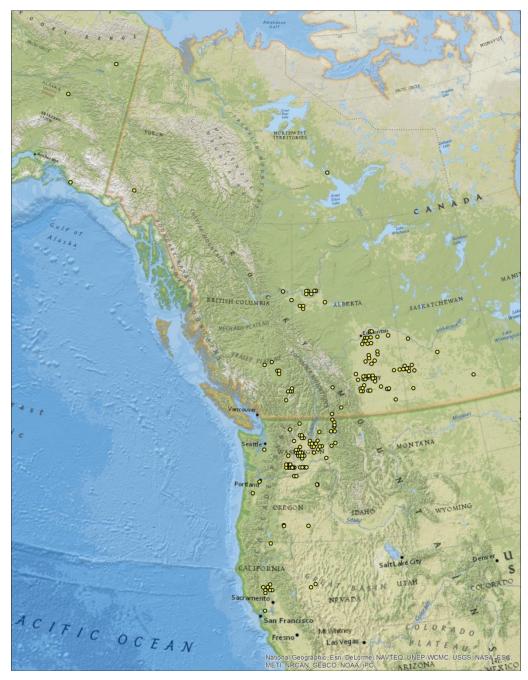


Figure 15. Locations (yellow dots) where local mallards (ducklings) were banded prior to being harvested in Washington State. Based on banding efforts from 1949-2012.

HUNTING

Scouting is often the key to successful waterfowl hunting. Ample opportunity exists for public waterfowl hunts, but hunters should first identify where birds are feeding and roosting. Feeding flights for ducks typically occur very early in the morning and late in the evening, and last for an hour or so. There is always good opportunity to harvest waterfowl during opening weekend in the Columbia Basin. A harvest rate of slightly above three ducks per person is common from year to year for the first weekend of the general waterfowl season. Mallard, teal, American wigeon, and gadwall are among the species most commonly encountered. Also, wood ducks can be found in fair numbers concentrating in stands of flooded Russian olive trees (typically associated with the Winchester and Frenchman wasteways) in the early season. Late in the season, when snow is on the ground and conditions are harsh, ducks are likely to feed more during the day while the snow is soft, or will seek out fields grazed by cattle so they can access the snow-buried corn kernels. Knowing when and where ducks are feeding and which direction they depart will help hunters determine the best locations to intercept the duck traffic with a spread of decoys.

Select areas to hunt based on the species you want to target. Diving ducks are typically hunted along the Columbia River, particularly at Wells Pool, Wanapum Pool, and Priest Rapids Pool. They forage over beds of submerged aquatic vegetation such as pondweeds and milfoil. American wigeon will associate with diving ducks because they are *kleptoparasites*, meaning they wait for the diving ducks or coots to bring up a bill-full of vegetation, then quickly rush in to swipe a meal. Dabbling ducks are more commonly targeted on the plateau where grain corn and wheat fields attract mallards and pintail and shallow wetlands attract teal, American wigeon, and gadwall. Canada geese feed primarily in wheat and alfalfa fields, so requesting permission from private landowners in often necessary to secure good goose hunting.

Setting up a decoy spread on a pond between the feeding and roosting sites will generally result in some good shooting, particularly when conditions are favorable (wind, snow, fog). Typically, the larger roosting sites will be the Wanapum Closure (Columbia River), Winchester Reserve, Potholes Reserve, and Columbia National Wildlife Refuge Marsh units. Hunters should be mindful that water (and muck) depths are highly variable and it takes a lot of trial and error to learn where you can and cannot set out decoys. For some areas, boat access is a must. Winchester and Frenchman Wasteways (the two major drainages entering the west side of Potholes Reservoir) are crossable in some areas with chest waders, but use caution, as deep holes do exist and patches of muck can be difficult to exit, particularly when packing decoys.

One of the more popular waterfowl hunting areas is Potholes Reservoir. The abundance of small sand dune islands, where hunters find cover, makes this an attractive area to many hunters. Most hunters use the northern portion of the reservoir, where they find shallower water and numerous islands. Hunting pressure and competition for the best locations on Potholes Reservoir is high. Hunters new to the reservoir should be aware that potholes reservoir water levels do increase dramatically through the hunting season.

Winchester Lake is another location where hunters can expect to see good numbers of waterfowl, but hunting pressure is relatively high. Winchester Lake sits in a prime location to get traffic from mallards that feed on grain corn in the surrounding area. Ducks typically come from

Winchester Reserve, Potholes Reserve, Moses Lake, and/or the Wanapum Closure to feed in fields, and they occasionally attempt to shorten their commute to the roost by stopping at Winchester Lake instead. This area can be very good at times.

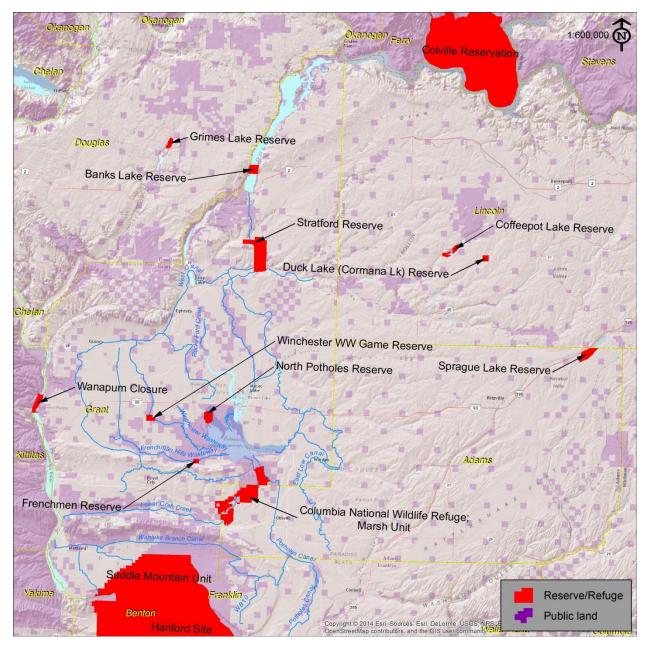


Figure 16. Location of wildlife reserves and closed federal refuge units (in red) throughout and adjacent to the Ephrata District.



Figure 17. Aerial imagery showing difference between high water (June) and low water (September) levels on Potholes Reservoir.

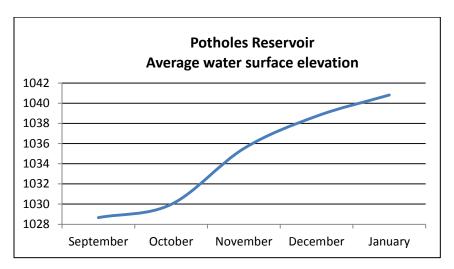


Figure 18. Potholes Reservoir water surface elevation (in feet) during waterfowl season. Note that water surface elevation is measured at O'Sullivan dam and some lag in flooding will occur in the upper portions of the reservoir.

Dogs are often an absolute necessity for retrieving throughout most of the Ephrata District, but Regulated Access Areas (RAA) have some shallow ponds which could be hunted with a pair of chest waders. Hunters frequenting the Winchester RAA should use caution on pintails, which can be abundant, making it easy to exceed bag limits. Time restrictions and the number of vehicles allowed for the RAA can be found in the hunting pamphlet. These sites are now Register to Hunt, so be sure to register at the box provided in the parking area.

Waterfowl hunters should also be aware of private land grain fields enrolled in the Hunter Access Program. This program is intended to provide public field hunting opportunity for ducks and geese but also may provide opportunity to harvest pheasants and occasionally gray partridge. Fields are typically identified and enrolled during November, after the fields are harvested. The timing of enrollment and field locations will vary annually. Call or visit the Ephrata regional office at (509) 754-4624 for details about this program and the Regulated Access Areas.

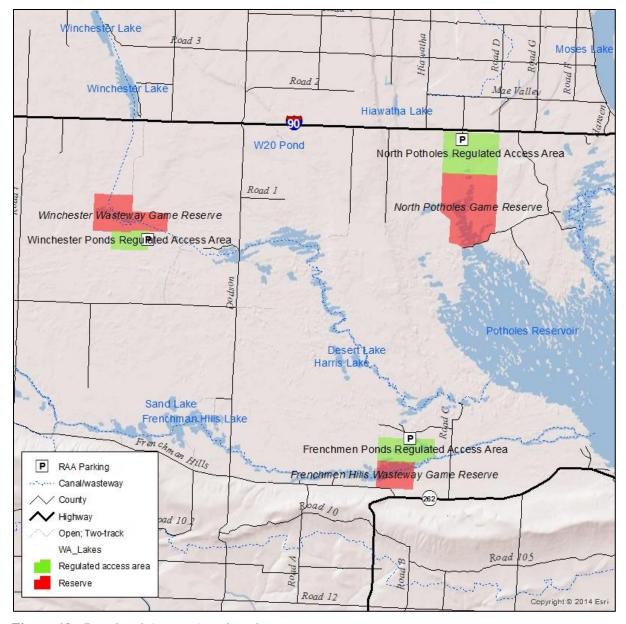


Figure 19. Regulated Access Area locations.

REGULATED ACCESS AREAS

| Regulated | Parking | Register to | | |
|-----------------------|---------|-------------|-------------------------------|-----------------------------------|
| Access Area | Spots | Hunt | Hunt Days | Reservation Required ² |
| Winchester | | Register on | Wed, Sat, Sun and Mgmt Area 4 | |
| Ponds | 5 | site | goose hunting days | No |
| Frenchman | 5 + 2 | Register on | Wed, Sat, Sun and Mgmt Area 4 | |
| Ponds | ADA | site | goose hunting days | No |
| North | | Register on | Wed, Sat, Sun and Mgmt Area 4 | |
| Potholes ³ | 5 | site | goose hunting days | No^4 |

| | | Hai | rvest | | | Har | vest | | Hai | rvest |
|-----------------|-----|------|-------|----------------|-----|------|-------|----------------|------|-------|
| Winchester Pond | ds | Duck | Goose | Frenchman Pond | ds | Duck | Goose | North Potholes | Duck | Goose |
| 2011-12 | | 299 | 11 | 2011-12 | | 142 | 4 | | | |
| 2012-13 | | 738 | 19 | 2012-13 | | 300 | 10 | | | |
| 2013-14 | | 507 | 26 | 2013-14 | | 149 | 3 | | | |
| 2014-15 | | 1067 | 34 | 2014-15 | | 281 | 4 | | | |
| 2015-16 | | 597 | 12 | 2015-16 | | 461 | 9 | 2015-16 | 110 | 11 |
| | Avg | 642 | 20 | F | Avg | 267 | 6 | | | |

Winchester Ponds RAA is the most popular RAA in the district and it consistently produces birds. Five blinds (established in 2012) are distributed throughout the access area and are available on a first-come basis, but hunters are not required to hunt from blinds, as the area is open to free-roam. All five parking spots are often filled as soon as access is allowed at 4:00 a.m.

http://wdfw.wa.gov/hunting/hunting_access/private_lands/type/56/
New opportunity created for the 2015-16 season, requires registration and in some cases online reservation.
Due to relatively low hunting success and demand, reservations are no longer required at this regulated access area.

Frenchman Ponds RAA is not as productive as the Winchester Ponds RAA, likely because the adjacent Frenchman Reserve typically supports a fraction of the mallards that use the Winchester Reserve. As a result, this area receives less attention and hunters are likely to get a spot here, even if showing up late in the morning. The area is open to free-roam. Two wheel-chair accessible hunting blinds have been provided by the Washington Waterfowl Association through an Aquatic Lands Enhancement Account (ALEA) grant and are available to all hunters. However, they must be forfeited by non-disabled hunters in the event that a disabled hunter requests the site. Disabled hunters may check out a key from the Ephrata Regional Office and will be able to drive to the blinds and park relatively close. Call the Regional Office at 509-754-4624 for details.

North Potholes RAA is a relatively new area and has unique hunting conditions. Potholes Reservoir water levels ultimately determine water levels within these ponds. Some identified hunt sites, like Ponds 3 and 5, could be dry, particularly from October through November in the season. The lowest water levels probably occur during the first half of November. Because the deepest portions of these ponds do not dry out, extremely mucky conditions exist for early season hunting conditions. Parking spots correspond to specific hunt sites. Hunters will be required to hunt within eyesight of identified sites in the field. Hunters must not hunt waterfowl away from their designated hunt site, but may pursue other game, such as upland birds, mule deer, coyote, and cottontail rabbits, on a free-roam basis. Hunters pursuing species other than waterfowl are strongly encouraged to stay at least 400 meters (1/4 mile) from designated waterfowl hunt sites.

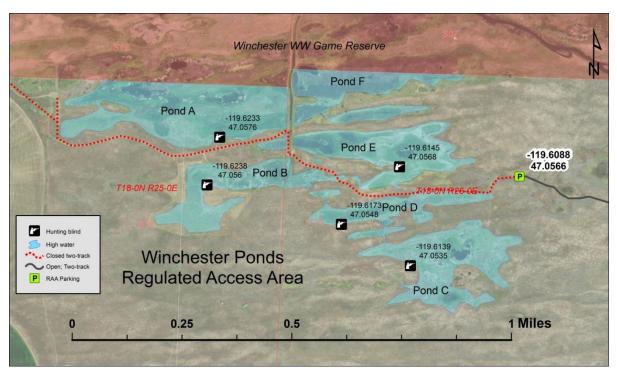


Figure 20. Winchester Ponds Regulated Access Area.

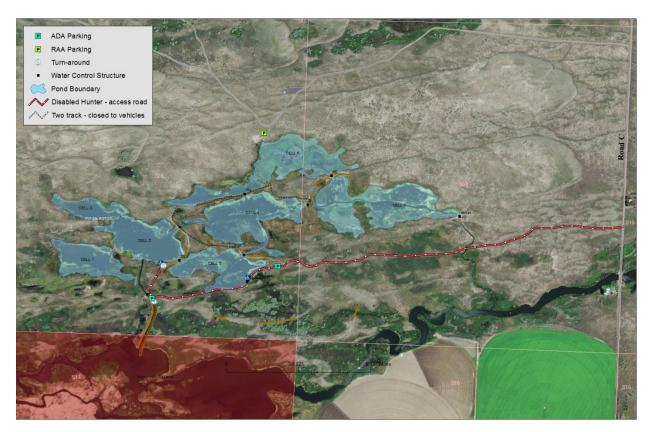


Figure 21. Frenchman Ponds Regulated Access Area.

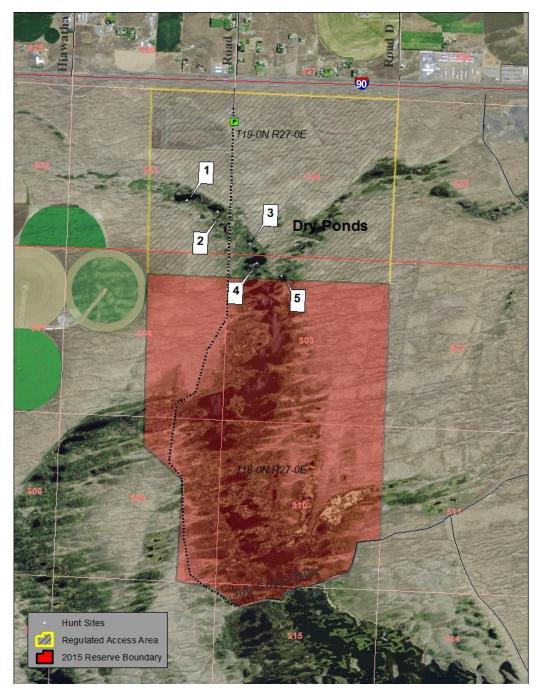


Figure 22. North Potholes Regulated Access Area.

When targeting mallards, as most waterfowl hunters do, it pays to understand where the grain corn is likely to be found. Figure 23 below was created using the USDA NASS Cropland Data layers for corn (2006-2012). These data layers display where corn was grown during a given year. The layers are stacked and displayed at 75% transparency, so corn fields only planted once during the 2006-2012 time period would display as dull yellow, whereas corn fields planted many times during the 2006-2012 time period would display as bright yellow. Unfortunately, the data layers do not discriminate between corn varieties (sweet, silage, grain), but this map

does show some important waterfowl foraging areas having a preponderance of bright yellow, and may prove to be a useful tool when scouting.

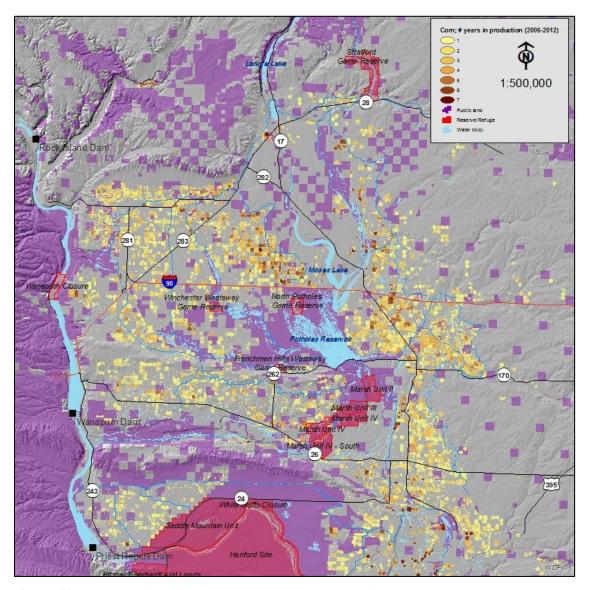


Figure 23. Juxtaposition of corn planting relative to waterfowl sanctuary areas.

SMALL GAME

DISTRIBUTION AND POPULATION STATUS

Small game in the Ephrata District consists primarily of bobcat, raccoon, fox, crows, coyotes, and cottontail rabbits. There are no sizeable populations of forest grouse or wild turkey in this district. Formal surveys to assess population status of small game species are not conducted in the Ephrata District. Bobcats occur in the Ephrata District, but harvest is relatively low. Raccoons occur in fair numbers in association with wetlands and residential developments when adequate native habitat exists. Fox farms occurred adjacent to the Columbia Plateau during the early 1900s, but declines in fur prices during the 1950s resulted in fox being released into the wild. A few descendants of these individuals occur within the Ephrata District today. However, these introduced fox are still considered relatively uncommon. Most fox are reported in the vicinity of Moses Lake. Crows are typically hunted in areas where damage occurs, such as orchards (typically nuts), thus hunting opportunities for crows within the Ephrata District are limited. There is a lot of opportunity for covote hunting throughout most of the Ephrata District. Yellow-bellied marmots can be hunted, but most hunting opportunity occurs on private lands where rock piles and agriculture are in close proximity. Hunters should also be aware that Washington ground squirrels are protected and they can occur in large numbers in the Ephrata District.

Cottontail rabbit hunting can help hunters hone their shooting skills while staying in shape for other hunting opportunities. Cottontails are widespread and abundant throughout District 5 in areas of optimal habitat. In native landscapes, hunters should look to rock outcrops, greasewood patches, or other thickets where suitable escape cover occurs. These rabbits are often found along habitat edges. Therefore, focusing efforts in areas where two or more of their preferred habitats occur will produce the best results, particularly if green forage is nearby. On private lands, cottontails can be found within and around equipment storage areas or rock piles. To be successful hunting rabbits, hunters should cover lots of ground while kicking brush. Stopping periodically will cause nearby rabbits to become nervous and they will oftentimes flee when you resume walking, providing only a brief shooting window. Another popular way to hunt rabbits is through the use of trained beagles. Using their noses, beagles will find and jump a rabbit, at which point the rabbit will outrun the beagle as the dog works to unlock the scent trail. A cottontail typically runs a large circle and reappears near the area in which it was first jumped. The hunter must correctly predict what path the rabbit will take as it circles around ahead of the beagle and harvest it before it runs into a hole. Hunters targeting cottontails should be aware of the endangered pygmy rabbit, which looks similar to cottontails and is found in shrub-steppe habitat.

PUBLIC LANDS

WDFW MANAGED LAND

The Columbia Basin Wildlife Area contains about 192,000 acres and provides habitat for a multitude of species. For more information on this wildlife area, please visit the WDFW Lands website. Visitors to the wildlife area need to be aware that a Discover Pass or Vehicle Access Pass is required to access all WDFW lands.

The Eastern Washington Pheasant Enhancement Program was designed to help supplement harvest and maintain hunter opportunity in Washington. Several pheasant release sites are found in the Ephrata District. For more information on this program and release sites in this district, please visit the Enhancement Program's website.

DEPARTMENT OF NATURAL RESOURCES

The Washington Department of Natural Resources maintains land that is open to the public for recreational purposes. Visitors to DNR land should be aware that a Discover Pass is required for access. Further information regarding recreational opportunities on DNR land can be found here.

NATIONAL FOREST

There is no national forest in the Ephrata District.

BUREAU OF LAND MANAGEMENT

Some BLM land is found in the Ephrata District and is open to public hunting. For more information on BLM property or to order maps, please visit the blm.gov website.

OTHER

ADA ACCESS

The Ephrata District maintains some access for Americans with disabilities. These sites occur at Rocky Ford Creek (Drumheller Pond), Buckshot Ranch, and the Frenchman Ponds Regulated Access Area. Hunters must have a Disabled Hunter Permit (and in most cases permits from the land managers) in order to access hunting areas behind locked gates by driving on the roads that are normally open only to walk-ins. For additional information, please call or write to Dolores Noyes, WDFW, 360-902-2349, Fax: 360-902-2392 or Email: Dolores.Noyes@dfw.wa.gov.

Rocky Ford Creek Directions: Travel south from Ephrata on SR 282 for 7.2 miles. Turn right onto Neppel Road (Old Moses Lake Highway). Go 0.1 miles and turn right at the public fishing sign. Continue 0.5 miles to the access site. The access duck blind is on a small pond off the creek. A vehicle can be used to drop off a disabled hunter next to the blind. The ground around the blind is rough and access into the water is best with a small hand launch boat or raft. An accessible vault toilet is in the parking lot located nearby for the walk-in anglers. Use of the blind is by reservation only. Hunters can obtain a key from the Ephrata Regional Office by calling 509-754-4624.

Buckshot Ranch: Drive south on SR 243 along the Columbia River from Vantage toward Mattawa. Turn right (west) onto Road 26 SW and go about one mile to the Priest Rapids/Buckshot Wildlife Area. Follow the gravel road into a parking area and turn right between two fence posts. Follow the dirt road north 0.25 miles to a locked gate on the left. Drive

through the gate into the crop field towards the old pump house. A ground level roll-in goose pit blind is available with seasonal success dependent on weather. Call the Ephrata Regional Office at 509-754-4624 to reserve the blind and obtain a key.

Frenchman Ponds Regulated Access Area: From Moses Lake, travel south on Highway 17 to Road M SE and turn right (south). Continue on Road M for about six miles and turn right (west) onto Highway 262 (O'Sullivan Dam Road). Continue on Highway 262 across O'Sullivan Dam and past Potholes State Park, and turn right (north) onto Road C SE. Proceed north on Road C SE for 1.4 miles and look for the disabled access gate on the left hand side of the road. For further detail, see the map in the Regulated Access Area section of this document. Call the Ephrata Regional Office at 509-754-4624 to reserve the blind and obtain a combination to the lock.

PRIVATE LANDS

LAND OWNERSHIP

Whether hunting, hiking, or wildlife viewing, it is important that we all respect private property rights and always ask permission before entering private lands. Fortunately, technology has made this process considerably easier and landownership can now be ascertained from the internet using the following resources. Simply log on and use the interactive map program to zoom into your area of interest. Clicking on the parcels will reveal landowner information.

http://adamswa.mapsifter.com/ http://grantwa.mapsifter.com/

The disadvantage of these resources is the lack of portability and difficulty scanning a large area for availability of public land. However, these are by far the best available resources for identifying ownership of specific locations. The best resource available for identifying where public land occurs is the Department of Natural Resources public lands quadrangles (1:100k). See the link below to order a copy for a fee.

 $\underline{\text{http://www.dnr.wa.gov/BusinessPermits/Topics/Maps/Pages/public_lands_quadrangle_maps.asp} \underline{x}$

PRIVATE LANDS PROGRAM

Since 1948, WDFW has worked with private landowners across the state to provide public access through a negotiated agreement. Landowners participating in a WDFW cooperative agreement retain liability protection provided under RCW 4.24.210. Landowners receive technical services, materials for posting (signs and posts), and in some cases monetary compensation. In addition, lands under agreement are well known by WDFW Enforcement. Currently, the private lands access program includes four basic access agreement types: Feel Free to Hunt, Register to Hunt, Hunt by Written Permission, and Hunt by Reservation. More information on where these enrolled lands occur can be found at WDFW's GoHunt site. Over 200,000 acres of private property in the Ephrata District are accessible to hunters through these agreements. When accessing these lands, hunters should obey all the rules posted for that specific piece of property. Hunters should also be aware that, unless property is enrolled in these agreements, they may not access private property and they may be prosecuted if they trespass.

| Private Lands Access Program | Grant County | Adams County |
|------------------------------|---------------------|--------------|
| Feel Free To Hunt | 18,000 | 16,000 |
| Hunt By Written Permission | 49,000 | 110,000 |
| Hunt By Reservation (Online) | 18,000 | 0 |
| TOTAL | 87,000 | 126,000 |
| | | |
| | | |

Table 1. Approximate acreage of access available by access type.

ADDITIONAL INFORMATION

YOUTH HUNTING OPPORTUNITIES

WDFW and the Columbia Basin Chapter of Pheasants Forever have been partnering in recent years to host a day of pheasant hunting during the youth season. This event will take place on Saturday, September 17 at B&G Farms in the Royal City area. Please make a reservation for Private Lands Hunting Access location Road 15, Road 13 south of Highway 26 so the organizers can plan accordingly. However, those arriving without reservations will be welcome to participate. For more information, check the Columbia Basin Chapter of Pheasants Forever - Facebook Page or call the WDFW Ephrata Regional Office at (509) 754-4624.

BIRD DOG TRAINING

The Ephrata District does not currently have any areas designated for bird dog training. Thus, all training on WDFW land must occur within the established bird dog training season, which runs from August 1 – March 31.

TARGET SHOOTING

Per WAC 332-52-145, target shooting is allowed in developed recreational facilities or areas with an unobstructed, earthen backstop capable of stopping all projectiles and debris in a safe manner. Targets are defined as items that are commercially manufactured for the specific purpose of target shooting. Because of extensive misuse of WDFW managed lands (primarily litter-related), some areas have been closed to target shooting, particularly in the Lind Coulee, Potholes, and Seep Lakes units of the CBWA. Information for shooting range facilities is provided below.

| County | Name | Contact |
|--------|-------------------------------|--------------------------|
| Adams | Lind Golf & Gun Club | 509-671-3314 |
| Adams | Othello Gun Club | 509-488-3768 |
| Adams | Ritzville Gun Club | Gun Club Road, Ritzville |
| Adams | Washtucna Gun Club | 509-646-3263 |
| Grant | Boyd Mordhorst Memorial Range | 509-345-2550 |
| Grant | Coulee City Sportsmen | 509-632-5137 |
| Grant | Marlin Trap Club | 509-982-2445 |
| Grant | Moses Lake Gun Club | 509-765-1382 |
| Grant | Quincy Gun Club | 509-787-5506 |

Table 2. List of target shooting facilities in the Ephrata District.

LITERATURE CITED

- Buller. R. J. 1975. Redistribution of waterfowl, influence of water, protection, and feed. International Waterfowl Symposium 1:143–154.
- Rabenberg, M. J. 1982. Ecology and population dynamics of mallards wintering in the Columbia Basin. M.S. Thesis, University of Montana, Missoula. 135 pp.
- Munro, R. E., and C. F. Kimball. 1982. Population ecology of the mallard: VII. Distribution and derivation of the harvest. U.S. Fish and Wildlife Service Resource Publication 147.

Desert Unit (GMU 290) photos



DESERT UNIT (GMU 290) FREQUENTLY ASKED QUESTIONS

Q: Where should I start looking for a mature buck?

A: The highest density of mule deer typically occurs between Dodson Road and Potholes Reservoir, bounded on the north by Interstate 90 and on the south by Frenchman Hills Road. It is recommended to explore all access points around this area when getting to know the unit, then branch out from there.

Q: What is the area like?

A: The unit sits within the heart of the Bureau of Reclamation, Columbia Basin Irrigation Project, which delivers water to over 600,000 acres of farmland in the area. As a result, many small ponds and streams have been incidentally created in this area. Hunters should be familiar with the orientation of Frenchman and Winchester Wasteways, as they pose a significant barrier and can only be crossed by boat or with chest waders in places. There are many small ponds associated with these wasteways that are used by waterfowl hunters. The Desert Unit provides a rich source of natural vegetation, so although mule deer utilize agricultural fields such as alfalfa, the crops may not be the best place to seek out your deer. Bitterbrush, which is common within the Desert Unit, is an important mule deer food item during winter. Be familiar with the distribution of bitterbrush patches, particularly during the later seasons if snowfall has occurred.

The Desert Unit sits on deep sandy soils. These soils have been wind-blown, resulting in long east-west running dunes which characterize the landscape (and provide great vantage points to scan for deer). These dunes and sandy soils can make walking difficult at times and will certainly make packing out an animal a lot of work.

Q: What size bucks am I likely to encounter?

A: The typical buck harvested from the Desert Unit is a 4x4 with a 24" spread. Many hunters report having seen larger bucks than the one they harvested.

Q: Are there any areas that I cannot hunt?

A: Hunters need to be aware of the locations and boundaries of Winchester Reserve, Frenchman Reserve, and North Potholes Reserve (Figure 16). Private lands within the Desert Unit are only open to hunting if the hunter first obtains landowner permission.

Q: Where should I stay?

A: The town of Moses Lake is the nearest location, with many amenities (motels, restaurants, etc.). Camping is allowed on WDFW lands, and most folks camp within the parking areas. Expect crowds during the opening weekend of duck and pheasant hunting and lots of hunting activity thereafter.

Q: Is there any other hunting going on in the area?

A: The entire unit is open to hunting. Expect to see waterfowl hunters and upland bird hunters throughout the area. However, these hunters are typically associated with the wasteways and associated ponds. Once you get far enough into the shrub dominated uplands, you will find far fewer people.